

CLEC-10A (ER-MP23): sc-56109

BACKGROUND

CLEC-10A (C-type lectin domain family 10, member A), also known as macrophage galactose and N-acetylgalactosamine-specific lectin (MGL), macrophage asialoglycoprotein-binding protein (M-ASGP-BP) or macrophage galactose/N-acetylgalactosamine-specific lectin, is a protein with galactose-binding activity and with sugar-binding specificity that is the same as that of the native lectin. CLEC-10A serves as a unique macrophage marker in mouse lung tissue due to its topographical site-dependent pattern of expression. Additionally, the most intense signal is observed in the extract from skin, suggesting that cells expressing this lectin are abundant in skin. CLEC-10A may also participate in the binding of the macrophages to tumor cells. Cells which stain positively for CLEC-10A are distributed in the connective tissue and in the interstice, particularly the dermis and subcutaneous layer of skin.

REFERENCES

- Oda, S., et al. 1989. Binding of activated macrophages to tumor cells through a macrophage lectin and its role in macrophage tumoricidal activity. *J. Biochem.* 105: 1040-1043.
- Li, M., et al. 1990. Molecular cloning and sequence analysis of cDNA encoding the macrophage lectin specific for galactose and N-acetylgalactosamine. *J. Biol. Chem.* 265: 11295-11298.
- Sato, M., et al. 1992. Molecular cloning and expression of cDNA encoding a galactose/N-acetylgalactosamine-specific lectin on mouse tumoricidal macrophages. *J. Biochem.* 111: 331-336.
- Kimura, T., et al. 1995. Calcium-dependent conformation of a mouse macrophage calcium-type lectin. Carbohydrate binding activity is stabilized by an antibody specific for a calcium-dependent epitope. *J. Biol. Chem.* 270: 16056-16062.

CHROMOSOMAL LOCATION

Genetic locus: *Clec10a* (mouse) mapping to 11 B3.

SOURCE

CLEC-10A (ER-MP23) is a rat monoclonal antibody raised against macrophage cell lines of mouse origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CLEC-10A (ER-MP23) is available conjugated to agarose (sc-56109 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-56109 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-56109 PE), fluorescein (sc-56109 FITC), Alexa Fluor® 488 (sc-56109 AF488), Alexa Fluor® 546 (sc-56109 AF546), Alexa Fluor® 594 (sc-56109 AF594) or Alexa Fluor® 647 (sc-56109 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-56109 AF680) or Alexa Fluor® 790 (sc-56109 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

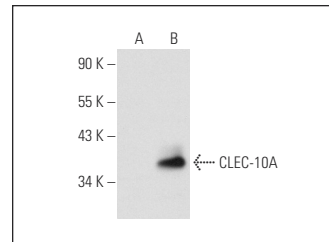
CLEC-10A (ER-MP23) is recommended for detection of CLEC-10A of mouse origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x 10⁶ cells).

Suitable for use as control antibody for CLEC-10A siRNA (m): sc-72220, CLEC-10A shRNA Plasmid (m): sc-72220-SH and CLEC-10A shRNA (m) Lentiviral Particles: sc-72220-V.

Molecular Weight of CLEC-10A: 42 kDa.

Positive Controls: CLEC-10A (m): 293T Lysate: sc-125612.

DATA



CLEC-10A (ER-MP23): sc-56109. Western blot analysis of CLEC-10A expression in non-transfected: sc-117752 (A) and mouse CLEC-10A transfected: sc-125612 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

- Jensen, K.D., et al. 2011. Toxoplasma polymorphic effectors determine macrophage polarization and intestinal inflammation. *Cell Host Microbe* 9: 472-483.
- Kumamoto, Y., et al. 2013. CD301b⁺ dermal dendritic cells drive T helper 2 cell-mediated immunity. *Immunity* 39: 733-743.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.